Air Quality Permit

Issued To: Devon Energy Corporation
Havre Pipeline Company, L.L.C.
P.O. Box 2606
Clear Creek Road
Havre, Montana 59501

Permit #2772-08
Application Complete: 07/09/04
Preliminary Determination Issued: 08/18/04
Department's Decision (DD) Issued: 09/03/04
Permit Final: 09/21/04
AFS #015-0001

An air quality permit, with conditions, is hereby granted to Devon Energy Corporation, Havre Pipeline Company, L.L.C. (HPC), pursuant to Sections 75-2-204 and 211, Montana Code Annotated (MCA), as amended, and Administrative Rules of Montana (ARM), 17.8.740, *et seq.*, as amended, for the following:

Section I: Permitted Facilities

A. Plant Location

The CS 102 Natural Gas Compressor Station is located in the SE¼ of the NW¼ of Section 26, Township 27 North, Range 16 East, in Chouteau County, Montana. A list of permitted equipment can be found in Section I.A. of the Permit Analysis.

B. Current Permit Action

On July 9, 2004, the Department of Environmental Quality (Department) received from HPC a complete permit application for the modification of Montana Air Quality Permit #2772-07. Specifically, HPC requested to add one 738-horsepower (hp) Waukesha 3521 GSI rich-burn compressor engine to the facility. The 738-hp engine was removed from the Blaine County #5 Compressor Station (Permit #3145) to be used at the CS 102 Compressor Station. In addition, Devon Energy Corporation requested that the Department change the corporate name on Permit #2772-07 from Ocean Energy, Inc. to Devon Energy Corporation. The current permit action adds the 738-hp Waukesha 3521 GSI compressor engine to Permit #2772-07, changes the corporate name on Permit #2772-07, and updates the permit to reflect current permit language and rule references used by the Department. Permit #2772-08 replaces Permit #2772-07.

Section II: Limitations and Conditions

A. Emission Limitations

1. Emissions from the new 738-hp Waukesha rich-burn compressor engine shall be controlled with the use of Non-Selective Catalytic Reduction (NSCR) technology with an air-fuel-ratio (AFR) controller and shall not exceed the following limits (ARM 17.8.752):

NO_x[1]	1.63 pounds per hour (lb/hr)
CO	1.63 lb/hr
VOC	1.63 lb/hr

2. Emissions from the 772-hp Superior compressor engine shall not exceed the

following limits (ARM 17.8.749 and ARM 17.8.752):

NO_x[1]	2.98 lb/hr
CO	3.06 lb/hr
VOC	2.12 lb/hr

3. Emissions from the existing 738-hp Waukesha compressor engine shall be controlled with the use of Non-Selective Catalytic Reduction (NSCR) technology with an air-fuel-ratio (AFR) controller and shall not exceed the following limits (ARM 17.8.752):

NO_x[1]	3.25 lb/hr
CO	4.88 lb/hr
VOC	1.63 lb/hr

4. HPC shall not cause or authorize emissions to be discharged into the outdoor atmosphere from any sources installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes (ARM 17.8.304).

5. HPC shall not cause or authorize emissions to be discharged into the atmosphere from haul roads, access roads, parking lots, or the general plant property without taking reasonable precautions to control emissions of airborne particulate matter (ARM 17.8.308).

6. HPC shall treat all unpaved portions of the access roads, parking lots, and general plant area with fresh water and/or chemical dust suppressant as necessary to maintain compliance with the reasonable precautions limitation in Section II.A.5. (ARM 17.8.749).

B. Testing Requirements

1. HPC shall test the new 738-hp Waukesha rich-burn compressor engine for NO_x and CO, concurrently, to demonstrate compliance with the NO_x and CO emission limits contained in Section II.A.1. Testing shall be conducted within 180 days of initial startup of the engine and shall continue on an every 4-year basis or according to another testing/monitoring schedule as may be approved by the Department (ARM 17.8.105 and ARM 17.8.749).

2. All compliance source tests shall be conducted in accordance with the Montana Source Test Protocol and Procedures Manual (ARM 17.8.106).

3. The Department may require further testing (ARM 17.8.105).

C. Operational Reporting Requirements

1. HPC shall supply the Department with annual production information for all emission points, as required, by the Department in the annual emission inventory request. The request will include, but is not limited to, all sources of emissions identified in Section I of the permit analysis.

Production information shall be gathered on a calendar-year basis and submitted

1 NO_x reported as NO_2

to the Department by the date required in the emission inventory request. Information shall be in units as required by the Department. This information may be used to calculate operating fees, based on actual emissions from the facility, and/or to verify compliance with permit limitations (ARM 17.8.505).

2. HPC shall notify the Department of any construction or improvement project conducted pursuant to ARM 17.8.745 that would include a change in control equipment, stack height, stack diameter, stack flow, stack gas temperature, source location, or fuel specifications, or would result in an increase in source capacity above its permitted operation or the addition of a new emissions unit. The notice must be submitted to the Department, in writing, 10 days prior to start-up or use of the proposed de minimis change, or as soon as reasonably practicable in the event of an unanticipated circumstance causing the de minimis change and must include the information requested in ARM 17.8.745(1)(d) (ARM 17.8.745).

3. All records compiled in accordance with this permit must be maintained by HPC as a permanent business record for at least 5 years following the date of the measurement, must be available at the plant site for inspection by the Department, and must be submitted to the Department upon request (ARM 17.8.749).

D. Notification

HPC shall provide the Department with written notification of the following information within the specified time periods (ARM 17.8.749).

1. HPC shall provide the Department with written notification of commencement of construction of the new 738-hp Waukesha compressor engine within 30 days after commencement of construction.

2. HPC shall provide the Department with the actual start-up date of the new 738-hp Waukesha compressor engine within 15 days after the actual start-up date of the engine.

SECTION III: General Conditions

A. Inspection - HPC shall allow the Department's representatives access to the source at all reasonable times for the purpose of making inspections or surveys, collecting samples, obtaining data, auditing any monitoring equipment (CEMS, CERMS) or observing any monitoring or testing, and otherwise conducting all necessary functions related to this permit.

B. Waiver - The permit and all the terms, conditions, and matters stated herein shall be deemed accepted if HPC fails to appeal as indicated below.

C. Compliance with Statutes and Regulations - Nothing in this permit shall be construed as relieving HPC of the responsibility for complying with any applicable federal or Montana statute, rule or standard, except as specifically provided in ARM 17.8.740, *et seq*. (ARM 17.8.756).

D. Enforcement - Violations of limitations, conditions and requirements contained herein may constitute grounds for permit revocation, penalties or other enforcement as specified in Section 75-2-401, *et seq*., MCA.

E. Appeals – Any person or persons jointly or severally adversely affected by the Department's decision may request, within 15 days after the Department renders it's decision, upon affidavit setting forth the grounds therefor, a hearing before the Board of Environmental Review (Board). A hearing shall be held under the provisions of the Montana Administrative Procedures Act. The filing of a request for a hearing does not stay the Department's decision, unless the Board issues a stay upon receipt of a petition and a finding. The issuance of a stay on a permit by the Board postpones the effective date of the Department's decision until conclusion of the hearing and issuance of a final decision by the Board. If a stay is not issued by the Board, the Department's decision on the application is final 16 days after the Department's decision is made.

F. Permit Inspection - As required by ARM 17.8.755, Inspection of Permit, a copy of the air quality permit shall be made available for inspection by Department personnel at the location of the permitted source.

G. Permit Fees - Pursuant to Section 75-2-220, MCA, as amended by the 1991 Legislature, failure to pay the annual operation fee by HPC may be grounds for revocation of this permit, as required by that section and rules adopted thereunder by the Board.

Permit Analysis
Devon Energy Corporation
Havre Pipeline Company, L.L.C.
Permit #2772-08

I. Introduction/Process Description

A. Permitted Equipment

Devon Energy Corporation, Havre Pipeline Company, L.L.C. (HPC) owns and operates the following equipment:

(2) 738-horsepower (hp) Waukesha Compressor Engines
(1) 772-hp Superior Compressor Engine
(1) 0.5 Million British thermal units/hour (MMBtu/hr) ALCO TEG Dehydrator
(1) 120-MBtu/hr Heater
(1) 75-MBtu/hr Heater
(1) 300-hp Ajax DPC Compressor Engine
(1) 100-hp Arrow 330 TA Engine for engine-driven chiller

B. Source Description

The HPC CS 102 Natural Gas Compressor Station is located in the SE¼ of the NW¼ of Section 26, Township 27 North, Range 16 East, in Chouteau County, Montana. The CS 102 Compressor Station compresses pipeline gas for transport to major market areas. This facility also removes the moisture from the gas during the process. This is accomplished with the dehydrator, also called a reboiler or glycol unit.

C. Permit History

Montana Power Company (MPC) was issued Permit **#2772-00** for the operation of a compressor station and associated equipment at the Big Sandy Field, Station 102-1.

On March 1, 1994, the Department of Environmental Quality (Department) issued Permit **#2772-01**. This modification was requested by MPC to revise the emission limitation units. The revision was due to varying parameters, such as engine RPM, operating load (bhp), ambient air temperature, gas temperature, site, elevation, fuel gas quality, air/fuel ratio (AFR), field gas conditions, etc. Rather than expressing the limit for engines in a grams per brake horsepower-hour (g/bhp-hr), an emission limit expressed in pound per hour (lb/hr) was requested for operational flexibility. Also, to clarify NO_x mass emission calculations, NO_x emission limitations were identified as NO_2.

Permit **#2772-02** was issued on November 1, 1997. The reason for the modification was the transfer of the ownership of the Big Sandy Field Station 102-1 from MPC to UMC Petroleum Corporation. Also, an Ajax DPC 300-hp compressor engine was added. With this change, the facility requested an operational limit to keep the emissions below the Title V operating permit threshold. The addition of the engine was covered under the Administrative Rules of Montana (ARM) 17.8.705(1)(r) because the potential emissions of the new equipment were below 15 tons per year, the de minimis threshold. The rule references were also updated. Permit #2772-02 replaced Permit #2772-01.

On June 3, 1999, the Department received notification that UMC Petroleum Corp had merged with Ocean Energy, Inc., HPC. The HPC, Big Sandy Field Station 102 compressor station began operating as a subsidiary of Ocean Energy, Inc. Subsequently, on June 11, 1999, the Department issued Permit **#2772-03**, which replaced Permit #2772-02.

On October 15, 1999, HPC requested a de minimis determination for the installation of a 772-hp Superior 6GTLE compressor engine and an ALCO Dehydrator at the Big Sandy Field Compressor Station 102. HPC planned to remove the existing 600-hp White Superior compressor engine and the Sivalls Dehydrator after installation of the new equipment. Permit **#2772-04** replaced Permit #2772-03.

On July 29, 2000, HPC requested an alteration of Permit #2772-04. The alteration added a 1607-hp Waukesha Compressor Engine and a 607-hp Waukesha Compressor Engine. The alteration also removed a 600-hp White Superior Compressor Engine and a 300-MBtu/hr Sivalls Reboiler from the permit. In addition, the emission inventory for the 300-hp Ajax Compressor Engine was corrected and the operational limitations introduced in Permit #2772-02 were removed because the hours of operation limitation was no longer needed to keep the facility below the Title V threshold. Permit **#2772-05** replaced Permit #2772-04.

On July 10, 2001, HPC requested an alteration of Permit #2772-05 for the addition of a 738-hp Waukesha Compressor Engine. Further, HPC requested that the 1607-hp and the 607-hp Waukesha Compressor Engines be removed from the permit. Permit **#2772-06** replaced Permit #2772-05.

On April 3, 2003, the Department received a request from HPC for the addition of a 100-horsepower (hp) Arrow VRG 330 TA engine to provide power for an engine-driven chiller. On October 31, 2003, the Department received a letter from HPC for the determination of applicability of Subpart KKK to the facility. This permit action added the 100-hp Arrow engine to the permit according to the provisions of ARM 17.8.745, addressed the applicability of Subpart KKK, and updated the permit to reflect current permit language and rule references used by the Department. Permit **#2772-07** replaced Permit #2772-06.

D. Current Permit Action

On July 9, 2004, the Department received from HPC a complete permit application for the modification of Montana Air Quality Permit #2772-07. Specifically, HPC requested to add one 738-hp Waukesha 3521 GSI rich-burn compressor engine to the facility. The 738-hp engine was removed from the Blaine County #5 Compressor Station (Permit #3145) to be used at the CS 102 Compressor Station. The current permit action adds the 738-hp Waukesha 3521 GSI rich-burn compressor engine to Permit #2772-07 and updates the permit to reflect current permit language and rule references used by the Department. **Permit #2772-08** replaces Permit #2772-07.

E. Additional Information

Additional information, such as applicable rules and regulations, Best Available Control Technology (BACT)/Reasonably Available Control Technology (RACT) determinations, air quality impacts, and environmental assessments, is included in the analysis associated with each change to the permit.

II. Applicable Rules and Regulations

The following are partial explanations of some applicable rules and regulations that apply to the facility. The complete rules are stated in the ARMs and are available, upon request, from the Department. Upon request, the Department will provide references for locations of complete copies of all applicable rules and regulations or copies where appropriate.

A. ARM 17.8, Subchapter 1 - General Provisions, including, but not limited to:

1. ARM 17.8.101 Definitions. This rule includes a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.105 Testing Requirements. Any person or persons responsible for the emissions of any air contaminant into the outdoor atmosphere shall, upon written request of the Department, provide the facilities and necessary equipment, including instruments and sensing devices, and shall conduct tests, emission or ambient, for such periods of time as may be necessary using methods approved by the Department.

3. ARM 17.8.106 Source Testing Protocol. The requirements of this rule apply to any emission source testing conducted by the Department, any source, or other entity as required by any rule in this chapter, or any permit or order issued pursuant to this chapter, or the provisions of the Clean Air Act of Montana, 75-2-101, *et seq*., Montana Code Annotated (MCA).

   HPC shall comply with the requirements contained in the Montana Source Test Protocol and Procedures Manual, including but not limited to, using the proper test methods and supplying the required reports. A copy of the Montana Source Test Protocol and Procedures Manual is available from the Department upon request.

4. ARM 17.8.110 Malfunctions. (2) The Department must be notified promptly by telephone whenever a malfunction occurs that can be expected to create emissions in excess of any applicable emission limitation, or to continue for a period greater than 4 hours.

5. ARM 17.8.111 Circumvention. (1) No person shall cause or permit the installation or use of any device or any means which, without resulting in reduction in the total amount of air contaminant emitted, conceals or dilutes an emission of air contaminant that would otherwise violate an air pollution control regulation. (2) No equipment that may produce emissions shall be operated or maintained in such a manner that a public nuisance is created.

B. ARM 17.8, Subchapter 2 - Ambient Air Quality, including, but not limited to:

1. ARM 17.8.204 Ambient Air Monitoring
2. ARM 17.8.210 Ambient Air Quality Standards for Sulfur Dioxide
3. ARM 17.8.211 Ambient Air Quality Standards for Nitrogen Dioxide
4. ARM 17.8.212 Ambient Air Quality Standards for Carbon Monoxide
5. ARM 17.8.213 Ambient Air Quality Standard for Ozone
6. ARM 17.8.214 Ambient Air Quality Standard for Hydrogen Sulfide
7. ARM 17.8.220 Ambient Air Quality Standard for Settled Particulate Matter
8. ARM 17.8.221 Ambient Air Quality Standard for Visibility
9. ARM 17.8.222 Ambient Air Quality Standard for Lead
10. ARM 17.8.223 Ambient Air Quality Standard for PM_{10}

HPC must maintain compliance with the applicable ambient air quality standards.

C. ARM 17.8, Subchapter 3 - Emission Standards, including, but not limited to:

1. ARM 17.8.304 Visible Air Contaminants. This rule requires that no person may cause or authorize emissions to be discharged to an outdoor atmosphere from any source installed after November 23, 1968, that exhibit an opacity of 20% or greater averaged over 6 consecutive minutes.

2. ARM 17.8.308 Particulate Matter, Airborne. (1) This rule requires an opacity limitation of less than 20% for all fugitive emission sources and that reasonable precautions be taken to control emissions of airborne particulate matter (PM). (2) Under this rule, HPC shall not cause or authorize the use of any street, road, or parking lot without taking reasonable precautions to control emissions of airborne PM.

3. ARM 17.8.309 Particulate Matter, Fuel Burning Equipment. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere, PM caused by the combustion of fuel in excess of the amount determined by this section.

4. ARM 17.8.310 Particulate Matter, Industrial Process. This rule requires that no person shall cause, allow, or permit to be discharged into the atmosphere PM in excess of the amount set forth in this section.

5. ARM 17.8.322 Sulfur Oxide Emissions--Sulfur in Fuel. (4) Commencing July 1, 1972, no person shall burn liquid or solid fuels containing sulfur in excess of 1 pound of sulfur per million Btu fired. (5) Commencing July 1, 1971, no person shall burn any gaseous fuel containing sulfur compounds in excess of 50 grains per 100 cubic feet of gaseous fuel, calculated as hydrogen sulfide at standard conditions. HPC will utilize pipeline quality natural gas, in the engines, the dehydration unit, and the space heaters to meet this limitation.

6. ARM 17.8.324 Hydrocarbon Emissions--Petroleum Products. (3) No person shall load or permit the loading of gasoline into any stationary tank with a capacity of 250 gallons or more from any tank truck or trailer, except through a permanent submerged fill pipe, unless such a tank is equipped with a vapor loss control device as described in (1) of this rule, or is a pressure tank as described in (1) of this rule.

7. ARM 17.8.340 Standard of Performance for New Stationary Sources. This rule incorporates, by reference, 40 Code of Federal Regulations (CFR) Part 60, Standards of Performance for New Stationary Sources (NSPS). This facility is not an NSPS affected source because it does not meet the definition of any NSPS subpart defined in 40 CFR 60.

8. ARM 17.8.342 Emission Standards for Hazardous Air Pollutants for Source Categories. The source, as defined and applied in 40 CFR 63, shall comply with the requirements of 40 CFR 63, as listed below:

40 CFR 63, Subpart HH - National Emission Standards for Hazardous Air Pollutants From Oil and Natural Gas Production Facilities. Owners or operators

of oil and natural gas production facilities, as defined and applied in 40 CFR Part 63, shall comply with the applicable provisions of 40 CFR Part 63, Subpart HH. In order for a natural gas production facility to be subject to 40 CFR Part 63, Subpart HH requirements, certain criteria must be met. First, the facility must be a major source of Hazardous Air Pollutants (HAP) as determined according to paragraphs (a)(1)(i) through (a)(1)(iii) of 40 CFR 63, Subpart HH. Second, a facility that is determined to be major for HAPs must also either process, upgrade, or store hydrocarbon liquids prior to the point of custody transfer, or process, upgrade, or store natural gas prior to the point at which natural gas enters the natural gas transmission and storage source category or is delivered to a final end user. Third, the facility must also contain an affected source as specified in paragraphs (b)(1) through (b)(4) of 40 CFR Part 63, Subpart HH. Finally, if the first three criteria are met, and the exemptions contained in paragraphs (e)(1) and (e)(2) of 40 CFR Part 63, Subpart HH do not apply, the facility is subject to the applicable provisions of 40 CFR Part 63, Subpart HH. Because the facility is not a major source of HAPs, HPC is not subject to the provisions of 40 CFR Part 63, Subpart HH.

40 CFR 63, Subpart HHH National Emission Standards for Hazardous Air Pollutants From Natural Gas Transmission and Storage Facilities. Owners or operators of natural gas transmission or storage facilities, as defined and applied in 40 CFR Part 63, shall comply with the standards and provisions of 40 CFR Part 63, Subpart HHH. In order for a natural gas transmission and storage facility to be subject to 40 CFR Part 63, Subpart HHH requirements, certain criteria must be met. First, the facility must transport or store natural gas prior to the gas entering the pipeline to a local distribution company or to a final end user if there is no local distribution company. Second, the facility must be a major source of HAPs as determined using the maximum natural gas throughput as calculated in either paragraphs (a)(1) and (a)(2) or paragraphs (a)(2) and (a)(3) of 40 CFR Part 63, Subpart HHH. Third, a facility must contain an affected source (glycol dehydration unit) as defined in paragraph (b) of 40 CFR Part 63, Subpart HHH. Finally, if the three criteria above are met, and the exemptions contained in paragraph (f) of 40 CFR Part 63, Subpart HHH, do not apply, the facility is subject to the applicable provisions of 40 CFR Part 63, Subpart HHH. Because the facility is not a major source of HAPs, HPC is not subject to the provisions of 40 CFR 63, Subpart HHH.

40 CFR 63, Subpart ZZZZ National Emission Standards for Hazardous Air Pollutants for Reciprocating Internal Combustion Engines. Owners or operators of facilities that utilize reciprocating internal combustion engines (RICE) and that are a major source of HAPs, as defined and applied in 40 CFR Part 63, shall comply with the standards and provisions of 40 CFR Part 63, Subpart ZZZZ. In order for a facility that utilizes a RICE to be subject to 40 CFR Part 63, Subpart ZZZZ requirements, certain criteria must be met. The RICE must have a maximum rated design capacity greater than 500-hp and the facility must be a major source of HAPs. Based on the information submitted by HPC, the compressor station is not subject to the provisions of 40 CFR 63, Subpart ZZZZ because the facility is not a major source of HAPs.

D. ARM 17.8, Subchapter 5 - Air Quality Permit Application, Operation and Open Burning Fees, including, but not limited to:

1. ARM 17.8.504 Air Quality Permit Application Fees. This rule requires that an applicant submit an air quality permit application fee concurrent with the submittal of an air quality permit application. A permit application is incomplete until the proper application fee is paid to the Department. HPC submitted the appropriate permit application fee for the current permit action.

2. ARM 17.8.505 Air Quality Operation Fees. An annual air quality operation fee must, as a condition of continued operation, be submitted to the Department by each source of air contaminants holding an air quality permit, excluding an open burning permit, issued by the Department; and the air quality operation fee is based on the actual or estimated actual amount of air pollutants emitted during the previous calendar year.

   An air quality operation fee is separate and distinct from an air quality permit application fee. The annual assessment and collection of the air quality operation fee, described above, shall take place on a calendar-year basis. The Department may insert into any final permit issued after the effective date of these rules, such conditions as may be necessary to require the payment of an air quality operation fee on a calendar-year basis, including provisions that pro-rate the required fee amount.

E. ARM 17.8, Subchapter 7 - Permit, Construction and Operation of Air Contaminant Sources, including, but not limited to:

1. ARM 17.8.740 Definitions. This rule is a list of applicable definitions used in this chapter, unless indicated otherwise in a specific subchapter.

2. ARM 17.8.743 Montana Air Quality Permits--When Required. This rule requires a person to obtain an air quality permit or permit alteration to construct, alter or use any air contaminant sources that have the Potential to Emit (PTE) greater than 25 tons per year of any pollutant. HPC has a PTE greater than 25 tons per year of carbon monoxide (CO) and nitrogen oxides (NO_X); therefore, an air quality permit is required.

3. ARM 17.8.744 Montana Air Quality Permits--General Exclusions. This rule identifies the activities that do not require a permit under the Montana Air Quality Permit program.

4. ARM 17.8.745 —Montana Air Quality Permits – Exclusion for De Minimis Changes. This rule identifies the de minimis changes at permitted facilities that do not require a permit under the Montana Air Quality Permit Program.

5. ARM 17.8.748 New or Modified Emitting Units – Permit Application Requirements. (1) This rule requires that a permit application be submitted prior to installation, alteration or use of a source. HPC submitted the required permit application for the current permit action. (7) This rule requires that the applicant notify the public by means of legal publication in a newspaper of general circulation in the area affected by the application for a permit. HPC submitted an affidavit of publication of public notice for the May 7, 2004, issue of the *Havre Daily News*, a newspaper of general circulation in the town of Havre, Montana, in Hill County, as proof of compliance with the public notice requirements.

6. ARM 17.8.749 Conditions for Issuance or Denial of Permit. This rule requires that the permits issued by the Department must authorize the construction and operation of the facility or emitting unit subject to the conditions in the permit

and the requirements of this subchapter. This rule also requires that the permit must contain any conditions necessary to assure compliance with the Federal Clean Air Act (FCAA), the Clean Air Act of Montana, and rules adopted under those acts.

7. ARM 17.8.752 Emission Control Requirements. This rule requires a source to install the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized. The required BACT analysis is included in Section III of this permit analysis.

8. ARM 17.8.755 Inspection of Permit. This rule requires that air quality permits shall be made available for inspection by the Department at the location of the source.

9. ARM 17.8.756 Compliance with Other Requirements. This rule states that nothing in the permit shall be construed as relieving HPC of the responsibility for complying with any applicable federal or Montana statute, rule, or standard, except as specifically provided in ARM 17.8.740, *et seq*.

10. ARM 17.8.759 Review of Permit Applications. This rule describes the Department's responsibilities for processing permit applications and making permit decisions on those permit applications that do not require the preparation of an environmental impact statement.

11. ARM 17.8.762 Duration of Permit. An air quality permit shall be valid until revoked or modified, as provided in this subchapter, except that a permit issued prior to construction of a new or altered source may contain a condition providing that the permit will expire unless construction is commenced within the time specified in the permit, which in no event may be less than 1 year after the permit is issued.

12 ARM 17.8.763 Revocation of Permit. An air quality permit may be revoked upon written request of the permittee, or for violations of any requirement of the Clean Air Act of Montana, rules adopted under the Clean Air Act of Montana, the FCAA, rules adopted under the FCAA, or any applicable requirement contained in the Montana State Implementation Plan (SIP).

13. ARM 17.8.764 Administrative Amendment to Permit. An air quality permit may be amended for changes in any applicable rules and standards adopted by the Board of Environmental Review (Board) or changed conditions of operation at a source or stack that do not result in an increase of emissions as a result of those changed conditions. The owner or operator of a facility may not increase the facility's emissions beyond permit limits unless the increase meets the criteria in ARM 17.8.745 for a de minimis change not requiring a permit, or unless the owner or operator applies for and receives another permit in accordance with ARM 17.8.748, ARM 17.8.749, ARM 17.8.752, ARM 17.8.755, and ARM 17.8.756, and with all applicable requirements in ARM Title 17, Chapter 8, Subchapters 8, 9, and 10.

14. ARM 17.8.765 Transfer of Permit. This rule states that an air quality permit may be transferred from one person to another if written notice of Intent to Transfer, including the names of the transferor and the transferee, is sent to the Department.

F. ARM 17.8, Subchapter 8 - Prevention of Significant Deterioration of Air Quality, including, but not limited to:

1. ARM 17.8.801 Definitions. This rule is a list of applicable definitions used in this subchapter.

2. ARM 17.8.818 Review of Major Stationary Sources and Major Modifications--Source Applicability and Exemptions. The requirements contained in ARM 17.8.819 through ARM 17.8.827 shall apply to any major stationary source and any major modification, with respect to each pollutant subject to regulation under the FCAA that it would emit, except as this subchapter would otherwise allow.

This facility is not a major source since the facility is not a listed source and does not have a PTE greater than 250 tons per year of any pollutant (excluding fugitive emissions).

G. ARM 17.8, Subchapter 12 - Operating Permit Program, including, but not limited to:

1. ARM 17.8.1201 Definitions. (23) Major Source under Section 7412 of the FCAA is defined as any stationary source having:

a. PTE > 100 tons/year of any pollutant;

b. PTE > 10 tons/year of any one HAP, PTE > 25 tons/year of a combination of all HAPs, or lesser quantity as the Department may establish by rule; or

c. PTE > 70 tons/year of particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}) in a serious PM_{10} nonattainment area.

2. ARM 17.8.1204 Air Quality Operating Permit Program Applicability. (1) Title V of the FCAA of 1990 requires that all sources, as defined in ARM 17.8.1204 (1), obtain a Title V Operating Permit. In reviewing and issuing Air Quality Permit #2772-08 for the HPC Big Sandy Field Station CS 102 Compressor Station, the following conclusions were made:

a. The facility's PTE is less than 100 tons/year for any pollutant.

b. The facility's PTE is less than 10 tons/year of any one HAP and less than 25 tons/year of all HAPs.

c. This source is not located in a serious PM_{10} nonattainment area.

d. This facility is not subject to any current NSPS.

e. This facility is not subject to any current NESHAP standards.

f. This source is not a Title IV affected source, nor a solid waste combustion unit.

g. This source is not an EPA designated Title V source.

Based on these facts, the Department has determined that the CS 102 Compressor

Station will be a minor source of emissions as defined under Title V.

III. BACT Determination

A BACT determination is required for each new or altered source. HPC shall install on the new or altered source the maximum air pollution control capability that is technically practicable and economically feasible, except that BACT shall be utilized.

A BACT analysis was submitted by HPC in Permit Application #2772-08, addressing the available methods of controlling emissions from the source proposed at this facility. The Department reviewed these methods, as well as previous BACT determinations in order to make the following BACT determinations.

A. Compressor Engines

1. CO BACT

As part of the CO BACT analyses, the following control technologies, in order of the highest control efficiency to the lowest control efficiency, were reviewed:

- Lean-burn engine with a catalytic oxidation unit and an air-to-fuel ratio (AFR) controller;
- Lean-burn engine with a catalytic oxidation unit;
- Lean-burn engine with an AFR controller;
- Lean-burn engine with a non-selective catalytic reduction (NSCR) unit and AFR controller;
- Lean-burn engine with a NSCR unit;
- Lean-burn engine with no additional controls;
- Prestratisfied charge combustion (PCC) (i.e. lean-burn retrofit);
- PCC with catalytic oxidation unit and an AFR controller;
- PCC with catalytic oxidation unit;
- PCC with a NSCR unit and an AFR controller;
- PCC with a NSCR unit;
- PCC with an AFR controller;
- Rich-burn engine with a NSCR unit and an AFR controller;
- Rich-burn engine with a NSCR unit;
- Rich-burn engine with an AFR controller;
- Rich-burn engine with a catalytic oxidation unit and an AFR controller;
- Rich-burn engine with a catalytic oxidation unit; and
- Rich-burn engine with no additional controls.

Catalytic oxidation applied to a rich-burn is technically infeasible because the oxygen concentration from a rich-burn engine is not high enough for a catalytic oxidizer to operate properly. An NSCR unit applied to a lean-burn engine or PCC engine is also technically infeasible because the NSCR unit needs a rich fuel-to-air- ratio to operate effectively.

Technically feasible CO control options, in order of the highest control efficiency to the lowest control efficiency, include:

Control Technology	% Control	CO Emission Rate (g/bhp-hr)
Lean-burn with catalytic oxidizer and AFR	94.4	0.5
Lean-burn with catalytic oxidizer	94.4	0.5
Rich-burn with NSCR and AFR	88.9	1.0
PCC with catalytic oxidizer and AFR	88.9	1.0
PCC with catalytic oxidizer	88.9	1.0
Lean-burn with AFR	70.6	2.65
Lean-burn without control	70.6	2.65
Retrofit lean-burn without control	70.6	2.65
Rich-burn without control	--	9.0

The control methods listed above are widely used; these control options cannot be ruled out based on environmental or energy impacts. Lean-burn engines do emit relatively higher HAP (formaldehyde) emissions than rich-burn engines. Lean-burn engines cannot be eliminated based on higher formaldehyde emissions, but the higher formaldehyde emissions can effect the BACT determination.

HPC is proposing to use an existing HPC fleet Waukesha 3521 GSI rich-burn engine equipped with an NSCR unit and an AFR controller. The table below shows the cost per ton of CO reduction achieved for the various control options. The capital cost of purchasing a new rich-burn engine is considered zero. The capital costs of purchasing a lean-burn and PCC were provided by HPC.

CO Cost Effectiveness

Control Technology	Total Annual Cost	Resulting CO Emissions (tpy)	Cost Effectiveness ($/ton)
New lean-burn engine with CO oxidation catalyst and AFR controller	$100,656	3.6	$1,664
Existing rich-burn engine with NSCR unit and AFR controller	$57,888	7.1	$1,016
PCC engine with CO oxidation catalyst and AFR controller	$77,322	7.1	$1,357
PCC engine without controls	$75,573	18.9	$1,672
New lean-burn engine without controls	$98,909	18.9	$2,188
Existing rich-burn engine without controls	$57,888	64.1	--

Incremental CO Cost Effectiveness

Control Technology	Total Annual Cost	Resulting CO Emissions (tpy)	Incremental Cost Effectiveness ($/ton)
New lean-burn engine with CO oxidation catalyst and AFR controller	$100,656	3.6	$12,219
Existing rich-burn engine with NSCR unit and AFR controller	$57,888	7.1	---

The use of the existing rich-burn engine with an NSCR unit and an AFR controller is the most cost-effective method to control CO emissions. Purchasing the top control, a lean-burn engine equipped with an oxidation catalyst and an AFR controller would

cost an additional $12,219 per additional ton of CO removed beyond the proposed existing rich-burn engine that HPC currently owns. The Department agrees that the next best control option, rich-burn engines with an NSCR unit and an AFR controller, with an emission limit of 1.0 g/bhp-hr is BACT. A rich-burn engine equipped with a NSCR unit and an AFR controller is frequently used in the natural gas compression industry and the BACT determination is consistent with other recently permitted similar sources.

2. NO_X BACT

As part of the CO BACT analyses, the following control technologies, in order of the highest control efficiency to the lowest control efficiency, were reviewed:

- Lean-burn engine with a selective catalytic reduction (SCR) unit and AFR controller;
- Lean-burn engine with a SCR unit;
- Lean-burn engine with an AFR controller;
- Lean-burn engine with a NSCR unit and AFR controller;
- Lean-burn engine with a NSCR unit;
- Lean-burn engine with no additional controls;
- PCC (i.e. lean-burn retrofit);
- PCC with a SCR unit and an AFR controller;
- PCC with a SCR unit;
- PCC with an AFR controller;
- PCC with a NSCR unit and an AFR controller;
- PCC with a NSCR unit;
- Rich-burn engine with a NSCR unit and an AFR controller;
- Rich-burn engine with a NSCR unit;
- Rich-burn engine with an AFR controller;
- Rich-burn engine with a SCR unit and an AFR controller;
- Rich-burn engine with a SCR unit; and
- Rich-burn engine with no additional controls.

An SCR applied to rich-burn engines is technically infeasible because the oxygen concentration from rich-burn engines is not high enough for an SCR to operate properly. An NSCR on lean-burn and lean-burn retrofit engines is technically infeasible because the engine must burn a rich fuel mixture for the NSCR to properly operate.

Technically feasible NO_X control options, in order of the highest control efficiency to the lowest control efficiency, include:

Control Technology	% Control	NO_X Emission Rate (g/bhp-hr)
Lean-burn with a SCR unit and AFR controller	98.5	0.2
Lean-burn with a SCR unit	98.5	0.2
PCC with a SCR unit and AFR controller	97.7	0.3
PCC with a SCR unit	97.7	0.3
Rich-burn with NSCR unit and AFR controller	92.3	1.0
Rich-burn with NSCR unit	92.3	1.0
Lean-burn with AFR controller	92.3	1.0
Lean-burn without control	92.3	1.5
PCC without control	88.5	1.5
Rich-burn with AFR controller	0.0	13.0
Rich-burn without control	0.0	13.0

The control methods listed above are widely used; these control options cannot be ruled out based on environmental or energy impacts with the exception of lean-burn engines with SCR. Additional adverse environmental impacts could occur with an SCR unit operating at variable loads as required by a typical compressor engine. SCR units are typically installed on process units that have a constant or low variability in load fluctuation. When engine load changes excess ammonia (ammonia slip) may pass through the system and out the stack or not enough ammonia will be injected. SCR units have not been required to be installed on lean-burn compressor engines in Montana.

Lean-burn engines do emit relatively higher HAP (formaldehyde) emissions than rich-burn engines. Lean-burn engines cannot be eliminated based on higher formaldehyde emissions, but the higher formaldehyde emissions can affect the BACT determination.

HPC is proposing to use an existing Waukesha F3521 GSI rich-burn engine equipped with an NSCR unit and an AFR controller. The table below shows the cost per ton of NO_X reduction achieved for the various control options. The capital cost of purchasing a new rich-burn engine is considered zero. The capital costs of purchasing a lean-burn and lean-burn retrofit were provided by HPC.

NO_X Cost Effectiveness

NO_X Control Technology	Total Annual Cost	Resulting NO_X Emissions (tpy)	Cost Effectiveness ($/ton)
Existing rich-burn engine with NSCR unit and AFR controller	$57,888	7.1	$1,016
New lean-burn engine without controls	$98,909	10.7	$1,852
PCC engine without controls	$75,573	10.7	$1,415
Existing rich-burn engine without controls	$57,888	92.6	---

The use of the existing rich-burn engine with an NSCR unit and an AFR controller is the most cost-effective method to control NO_X emissions. The cost effectiveness for

the rich-burn engine is $1,016 per ton and the cost effectiveness of the new lean-burn engine is $1,852 per ton. A lean-burn engine would cost an additional $836 per additional ton of NO_X removed beyond the proposed existing rich-burn engine. The Department agrees that the proposed emission limit of 1.0 g/bhp-hr using an NSCR unit and an AFR controller to control NO_X emissions from the rich-burn is BACT. A rich-burn engine equipped with an NSCR unit and an AFR controller is frequently used in the natural gas compression industry and the BACT determination is consistent with other recently permitted similar sources.

3. VOC BACT

HPC proposed the use of an NSCR unit and an AFR controller to meet a lb/hr limit equivalent to 1.0 g/hp-hr. The Department determined that no additional controls and burning pipeline quality natural gas to meet a lb/hr emission limit equivalent to 1.0 g/hp-hr constitute BACT for the proposed compressor engine (Section II.A of Permit #2772-08). The VOC determination is consistent with VOC determinations for other similar permitted sources.

4. PM_{10} and SO_2 BACT

The Department is not aware of any BACT determinations that have required controls for PM_{10} or SO_2 emissions from natural gas fired compressor engines. HPC proposed no additional controls and burning pipeline quality natural gas as BACT for PM_{10} and SO_2 emissions from the proposed compressor engine. Due to the relatively small amount of PM_{10} and SO_2 emissions from the proposed engine and the cost of adding additional control, any add-on controls would be cost prohibitive. Therefore, the Department concurred with HPC's BACT proposal and determined that no additional controls and burning pipeline quality natural gas will constitute BACT for PM_{10} and SO_2 emissions from the compressor engine.

IV. Emission Inventory

	Ton/year					
Source	PM	PM_{10}	NO_x	CO	VOC	SO_x
772-hp Superior Compressor Engine	0.54	0.54	13.02	13.39	9.30	0.03
300-hp Ajax Compressor Engine	0.10	0.10	13.04	2.61	2.90	0.01
738-hp Waukesha Compressor Engine	0.31	0.31	14.22	21.38	7.13	0.02
Alco Dehydrator Reboiler and Still Vent	0.02	0.02	0.22	0.18	0.01	0.00
Two Natural Gas-Fired Heaters	0.00	0.00	0.09	0.02	0.00	0.00
100-hp Arrow Engine	0.03	0.03	9.74	2.90	0.97	0.00
New 738-hp Waukesha Compressor Engine	0.24	0.24	7.13	7.13	7.13	0.01495
Total	**1.24**	**1.24**	**57.46**	**47.61**	**27.44**	**0.07**

772-bhp Superior Compressor Engine
Heat Content of Natural Gas: 1,000 MMBtu/MMSCF
Fuel Consumption Rate: 15.98 MBtu/bhp-hr
Number of hours of operation per year: 8760hr/yr
Fuel Combustion Rate: 15.98 MBtu/bhp-hr * 772hp* 1MMBtu/1,000MBtu=12.34 MMBtu/hr
Fuel Usage: 12.34 MMBtu/hr * 1,000 MMBtu/MMSCF * 8760hr/yr =108.10 MMSCF/yr

PM Emissions
PM Emission Factor is equal to the PM_{10} Emission Factor, so PM Emissions are equal to PM_{10} Emissions.
PM_{10} Emissions
Emission Factor: 10.0 lb/MMSCF (Fire Version 5.0, 8/95 2-02-002-02)
Control Efficiency: 0%

Calculations: E(PM_{10}) = 10.0 lb/MMSCF * 108.10 MMSCF/yr * 0.0005 ton/lb = 0.54 ton/yr.

SO_x Emissions
Emission Factor: 0.6 lb/MMSCF (Fire Version 5.0, 8/95 2-02-002-02)
Control Efficiency: 0%
Calculations: E(SO_x) = 0.6 lb/MMSCF * 108.10 MMSCF/yr * 0.0005 ton/lb = 0.03 ton/yr

VOC Emissions
Emission Factor: 1.25 g/bhp-hr (Manufacturer's data)
Control Efficiency: 0%
Calculations: E(VOC) = 1.25 g/bhp-hr * 772 bhp * 0.0022 lb/g * 0.0005 ton/lb * 8760 hr/yr = 9.30 ton/yr

NO_x Emissions
Emission Factor: 1.75 g/bhp-hr (Manufacturer's data)
Control Efficiency: 0%
Calculations: E(NO_x) = 1.75 g/bhp-hr * 772 bhp* 0.0022 lb/g * 0.0005 ton/lb* 8760 hr/yr = 13.02 ton/yr

CO Emissions
Emission Factor: 1.80 g/bhp-hr (Manufacturer's data)
Control Efficiency: 0%
Calculations: E(CO)=1.80 g/bhp-hr * 772 hp * 0.0022 lb/g * 0.0005 ton/lb * 8760 hr/yr = 13.39 ton/yr

300-hp Ajax Compressor Engine
Brake Horsepower: 300 bhp
Hours of Operation: 8760 hr/yr
Max Fuel Combustion Rate: 8.50 MBtu/hp-hr * 300 hp = 2,550 MBtu/hr = 2.25MMBtu/hr
Fuel Heating Value: 1,000 Btu/SCF=1,000 MMSCF/MMBtu
Calculated Fuel Usage [MMSCF]: (Fuel Combustion Rate [MMBtu]/Heat Content of Fuel [MMBtu/MMCSF])*Hours/Year
Calculated Fuel Usage: (2.25 MMBtu/hr/1000MMSCF/MMBtu)*8760 hr/yr = 19.71MMSCF

PM Emissions
PM Emission Factor is equal to PM_{10} Emission Factor, so the PM Emissions are equal to PM_{10} Emissions

PM_{10} Emissions
Emission Factor: 10.0 lbs/MMSCF (FIRE, PC Version, 1/95, 2-02-002-02)
Calculations: E(PM_{10}) = 10.0 lb/MMSCF * 19.71 MMSCF* 0.0005 ton/lb = 0.10 ton/yr

NO_x Emissions
Emission Factor: 4.5g/bhp-hr (Data from Manufacturer)
Calculations: E(NO_x) = 4.5 g/bhp-hr * 300 bhp * 1 lb/453.6 g * 8760 hr/yr * 0.0005 ton/lb = 13.04 ton/yr

CO Emissions
Emission Factor: 0.9g/bhp-hr (Data from Manufacture)
Calculations: E(CO) = 0.9 g/bhp-hr * 300 bhp * 1 lb/453.6 g * 8760 hr/yr * 0.0005 ton/lb = 2.61 ton/yr

VOC Emissions
Emission Factor: 1.0 g/bhp-hr (Data from Manufacturer)
Calculations: E(VOC) = 1.0 g/bhp-hr * 300 bhp * 1 lb/453.6 g * 8760 hr/yr * 0.0005 ton/lb = 2.90 ton/yr

SO_x Emissions
Emission Factor: 0.6 lbs/MMSCF (FIRE, PC Version, 1/95, 2-02-002-02)
Calculations: E(SO_x) = 0.6 lb/MMSCF * 19.71 MMSCF * 0.0005 ton/lb = 0.01 ton/yr

738-hp Waukesha Compressor Engine
Fuel Combustion Rate: 7.005 MMBtu/hr
Heat Content of Natural Gas: 1,000MMBtu/MMCSF
Fuel Usage[MMSCF]: = Fuel Combustion Rate [MMBtu/hr]/Heat Content of Fuel [MMBtu/MMSCF]* Hour/Year
Calculated Fuel Usage: (7.005 MMBtu/hr/1,000 MMBtu/MMSCF) * 8760 hr/yr = 61.36 MMSCF/yr
Hours of Operations: 8760 hr/yr
Break Horsepower: 738 bhp

PM Emissions
PM Emission Factor is equal to PM_{10} Emission Factor, so the PM Emissions are equal to the PM_{10} Emissions
PM_{10} Emissions
Emission Factor: 10.00 lb/MMSCF (Fire 5.0, 20-200-202, 8/95)
Calculations: E(PM_{10}) =10.00 lb/MMBtu * 61.36 MMSCF/yr * 0.0005 ton/lb = 0.31 ton/yr

NO_x Emissions
Emission Factor: 2.00 g/bhp-hr (Revised BACT guidelines Dec.13, 1993)
Calculations: E(NO_x) = 2.00 g/bhp-hr * 738 bhp * 2.205exp-3 lb/g * 0.0005 ton/lb * 8760 hr/yr =14.22 ton/yr

VOC Emissions
Emission Factor: 1.00 g/bhp-hr (Revised BACT guidelines Dec.13, 1993)
Calculations: E(VOC) = 1.00 g/bhp-hr * 738 bhp * 2.205exp-3 lb/g *0.0005 ton/lb * 8760 hr/yr =7.13 ton/yr

SO_x Emissions
Emission Factor: 0.6 lb/MMSCF (Fire 5.0, 20-200-202, 8/95)
Calculations: E(SO_x)= 0.6 lb/MMSCF * 61.36 MMSCF/yr * 0.0005 ton/lb = 0.02 ton/yr

CO Emissions
Emission Factor: 3.00 g/bhp-hr (Revised BACT guidelines Dec.13, 1993)
Calculations: E (CO)= 3.00/bhp-hr * 738 bhp * 2.205exp-3 lb/g * 0.0005 ton/lb * 8760 hr/yr = 21.38 ton/yr

ALCO Dehydrator Reboiler and Stil Vent
Fuel Combustion Rate: 0.50 MMBtu/hr
Heat Content of Natural Gas: 1,000 MMBtu/MMSCF
Fuel Usage: 4.38 MMSCF/yr
Number of Hours of Operation: 8760 hr/yr

PM Emissions
PM Emission Factor is equal to PM_{10} Emission Factor, so the PM Emissions are equal to PM_{10} Emissions

PM_{10} Emissions
Emission factor: 7.6 lb/MMSCF (AP 42 Sec.1.4-2, 3/98)
Control Efficiency: 0%
Calculations: E(PM_{10})=7.6 lb/MMSCF * 4.38 MMSCF/yr * 0.0005 ton/lb = 0.017 ton/yr

NO_x Emissions
Emission Factor: 100.00 lb/MMSCF (AP 42 Sec.1.4-1, 3/98)
Control Efficiency: 0%
Calculations: E(NO_x)= 100.00 lb/MMSCF * 4.38 MMSCF/yr * 0.0005 ton/lb=0.22 ton/yr

CO Emissions
Emission Factor: 84.00 lb/MMSCF (AP 42 Sec.1.4-2, 3/98)
Control Efficiency: 0%
Calculations: E (CO)= 84.lb/MMSCF * 4.38 MMSCF/yr * 0.0005 ton/yr = 0.18 ton/yr

VOC Emissions
Emission Factor: 5.5 lb/MMSCF (AP 42 Sec.1.4-2, 3/98)
Control Efficiency: 0%
Calculations: E (VOC)=5.5 lb/MMSCF * 4.38 MMSCF/yr * 0.0005 ton/yr = 0.01 ton/yr

SO_x Emissions
Emission Factor: 0.60 lb/MMSCF (AP 42 Sec.1.4-2, 3/98)
Control Efficiency: 0%
Calculations: E (SO_x)= 0.60 lb/MMSCF * 4.38 MMSCF/yr * 0.0005 ton/lb = 0.00ton/yr

Natural Gas Space Heaters (2)
Two Heaters of Total Combustion Rate: 195 MBtu/hr=0.195 MMBtu/hr
Number of hour of Operation: 8760 hours per year.
Heat Content of Natural Gas: 1,000 MMBtu/MMSCF
Fuel Usage: [MMSCF] = (Fuel Combustion Rate [MMBtu/hr]/Heat Content of Fuel [MMBtu/MMSCF])* Hour /Year
Calculated Fuel Usage: (0.195 MMBtu/hr/1000 MMBtu/MMSCF) * 8760 hr/yr = 1.71 MMSCF

PM Emissions
PM Emission Factor is equal to PM_{10} Emission Factor, so the PM Emissions are equal to PM_{10} Emissions

PM_{10} Emissions
Emission Factor: 3.00 lb/MMSCF (Fire Version 5.0, SCC 10500106; 8/95)
Control Efficiency: 0%

Calculations: E (PM_{10}) =3.00 lb/MMCSF * 1.71 MMSCF* 0.0005ton/lb = 0.01ton/yr

SO_x Emissions
Emission Factor: 0.60 lb/MMSCF (Fire Version 5.0, SCC 10500106; 8/95)
Control Efficiency: 0%
Calculations: E (SO_x)=0.60 lb/MMSCF * 1.71 MMSCF * 0.0005ton/lb = 0.00 ton/yr

VOC Emissions
Emission Factor: 5.30 lb/MMSCF (Fire Version 5.0, SCC 10500106; 8/95)
Control Efficiency: 0%
Calculations: E (VOC)=5.30 lb/MMSCF * 1.71 MMSCF * 0.0005 ton/lb = 0.00 ton/yr

NO_x Emissions
Emission Factor: 100.00 lb/MMSCF (Fire Version 5.0, SCC 10500106; 8/95)
Control Efficiency: 0%
Calculations: E (NO_x)=100.00 lb/MMSCF * 1.71 MMSCF * 0.0005ton/lb = 0.09 ton/yr

CO Emissions:
Emission Factor: 20.00 lb/MMSCF (Fire Version 5.0, SCC 10500106; 8/95)
Control Efficiency: 0%
Calculations: E (CO)=20.00 lb/MMSCF * 1.71 MMSCF* 0.0005ton/lb = 0.02 ton/yr

100-hp Arrow VRG 330 TA engine-driven chiller
Fuel Combustion Rate: 0.731MMBtu/hr
Heat Content of Natural Gas: 1,000MMBtu/MMCSF
Fuel Usage[MMSCF]: = Fuel Combustion Rate [MMBtu/hr]/Heat Content of Fuel [MMBtu/MMSCF]* Hour/Year
Calculated Fuel Usage: (0.731 MMBtu/hr/1,000 MMBtu/MMSCF) * 8760 hr/yr = 6.40 MMSCF/yr
Hours of Operations: 8760 hr/yr
Break Horsepower: 100 bhp

PM Emissions
PM Emission Factor is equal to PM_{10} Emission Factor, so the PM Emissions are equal to PM_{10} Emissions

PM_{10} Emissions
Emission Factor: 10.00 lb/MMSCF (Fire PC Version 1/95, 2-02-002-02)
Control Efficiency: 0%
Calculations: E (PM_{10}) =10.00 lb/MMCSF * 6.40 MMSCF* 0.0005ton/lb = 0.03ton/yr

SO_x Emissions
Emission Factor: 0.6 lb/MMSCF (Fire Version 5.0, 8/95 2-02-002-02)
Control Efficiency: 0%
Calculations: E(SO_x) = 0.6 lb/MMSCF * 6.40 MMSCF/yr * 0.0005 ton/lb = 0.002 ton/yr

VOC Emissions
Emission Factor: 1.0 g/bhp-hr (BACT guideline EF used; manufacturer's data < permit determination value)
Control Efficiency: 0%
Calculations: E(VOC) = 1.0 g/bhp-hr * 100 bhp * 0.0022 lb/g * 0.0005 ton/lb * 8760 hr/yr = 0.97 ton/yr

NO_x Emissions
Emission Factor: 10.084 g/bhp-hr (CAT G3608 SITA Engine Specifications)
Control Efficiency : 0%
Calculations: E(NO_x) = 10.084 g/bhp-hr * 100 bhp* 0.0022 lb/g * 0.0005 ton/lb* 8760 hr/yr = 9.74 ton/yr

CO Emissions
Emission Factor: 3.0 g/bhp-hr (BACT guideline EF used; manufacturer's data < permit determination value)
Control Efficiency: 0%
Calculations: E(CO)=3.0 g/bhp-hr * 100 hp * 0.0022 lb/g * 0.0005 ton/lb * 8760 hr/yr = 2.90 ton/yr

New 738-hp Waukesha Compressor Engine
Fuel Combustion Rate: 5.805 MMBtu/hr
Heat Content of Natural Gas: 1,000MMBtu/MMscf
Fuel Usage[MMSCF]: = Fuel Combustion Rate [MMBtu/hr]/Heat Content of Fuel [MMBtu/MMSCF]* Hour/Year
Calculated Fuel Usage: (5.805 MMBtu/hr/1,000 MMBtu/MMSCF) * 8760 hr/yr = 50.85 MMscf/yr
Hours of Operations: 8760 hr/yr
Break Horsepower: 738 bhp

PM Emissions
PM Emission Factor is equal to PM_{10} Emission Factor, so the PM Emissions are equal to the PM_{10} Emissions

PM_{10} Emissions
Emission Factor: 0.0095 lb/MMBtu (AP-42 Table 3.2-3 (07/00))
Calculations: E(PM_{10}) =(0.0095 lb/MMBtu) x (5.805 MMBtu/hr) x (8,760 hr/yr) x (1 ton/2000 lb) = 0.24 ton/yr
= (0.24 ton/yr) x (2000 lb/ton) x (1 yr/8760 hr) = 0.054 lb/hr

NO_x Emissions
Emission Factor: 1.00 g/bhp-hr (Department BACT Determination)
Calculations: E(NO_x) = (1.00 g/bhp-hr) x (738 bhp) x (1 lb/453.6 g) x (0.0005 ton/lb) x (8760 hr/yr) =7.13 ton/yr
= (7.13 ton/yr) x (2000 lb/ton) x (1 yr/8760 hr) = 1.63 lb/hr

VOC Emissions
Emission Factor: 1.00 g/bhp-hr (Department BACT Determination)
Calculations: E(VOC) = (1.00 g/bhp-hr) x (738 bhp) x (1 lb/453.6 g) x (0.0005 ton/lb) x (8760 hr/yr) =7.13 ton/yr
= (7.13 ton/yr) x (2000 lb/ton) x (1 yr/8760 hr) = 1.63 lb/hr

SO_x Emissions
Emission Factor: 0.000588 lb/MMBtu (AP-42 Table 3.2-3 (07/00))
Calculations: E(SO_x)= (0.000588 lb/MMBtu) x (5.805 MMBtu/hr) x (8,760 hr/yr) x (1 ton/2000 lb) = 0.01495 ton/yr
= (0.01495 ton/yr) x (2000 lb/ton) x (1 yr/8760 hr) = 0.003 lb/hr

CO Emissions
Emission Factor: 1.0 g/bhp-hr (Department BACT Determination)
Calculations: E (CO)= (1.0 g/bhp-hr) x (738 bhp) x (1 lb/453.6 g) x (0.0005 ton/lb) x (8760 hr/yr) = 7.13 ton/yr
= (7.13 ton/yr) x (2000 lb/ton) x (1 yr/8760 hr) = 1.63 lb/hr

V. Existing Air Quality

The air quality classification for the area is "Better than National Standards" or unclassifiable attainment for the National Ambient Air Quality Standards for criteria pollutants. There are no nonattainment areas in the nearby area.

VI. Taking or Damaging Implication Analysis

As required by 2-10-101 through105, MCA, the Department conducted a private property taking and damaging assessment and determined there are no taking or damaging implications.

VII. Environmental Assessment

An environmental assessment, required by the Montana Environmental Policy Act, was completed for this project. A copy is attached.

DEPARTMENT OF ENVIRONMENTAL QUALITY
Permitting and Compliance Division
Air Resources Management Bureau
P.O. Box 200901, Helena, Montana 59620
(406) 444-3490

FINAL ENVIRONMENTAL ASSESSMENT (EA)

Issued To: Devon Energy Corporation
Havre Pipeline Company, LLC
PO Box 2606
Clear Creek Road
Havre, Montana 59501

Air Quality Permit Number: 2772-08

Preliminary Determination Issued: 08/18/04
Department Decision Issued: 09/03/04
Permit Final: 09/21/04

1. *Legal Description of Site*: HPC station would remain located in the SE¼ of the NW ¼ of Section 26, Township 27 North, Range 16 East, in Chouteau County, Montana.

2. *Description of Project*: Under the current permit action, HPC would add new equipment to the permitted facility. Specifically, this equipment would include one 738-hp Waukesha 3521 GSI rich-burn internal combustion (IC) compressor engine with non-selective catalytic reduction (NSCR) and an air-to-fuel-ratio (AFR) controller. The equipment would be added to an existing facility.

3. *Objectives of Project*: Since initial permitting of the HPC compressor station, HPC's plans, objectives, and engine requirements at this compressor station location have changed. The proposed project would provide increased business and revenue for HPC by allowing the company to gather and sell more natural gas from the area. The current permit action would facilitate these needs.

4. *Alternatives Considered*: In addition to the proposed action, the Department considered the "no-action" alternative. The "no-action" alternative would deny issuance of the air quality preconstruction permit to the proposed facility. However, the Department does not consider the "no-action" alternative to be appropriate because HPC demonstrated compliance with all applicable rules and regulations as required for permit issuance. Therefore, the "no-action" alternative was eliminated from further consideration.

5. *A Listing of Mitigation, Stipulations, and Other Controls*: A list of enforceable conditions, including a BACT analysis, would be included in Permit #2772-08.

6. *Regulatory Effects on Private Property*: The Department considered alternatives to the conditions imposed in this permit as part of the permit development. The Department determined that the permit conditions would be reasonably necessary to ensure compliance with applicable requirements and demonstrate compliance with those requirements and would not unduly restrict private property rights.

7. The following table summarizes the potential physical and biological effects of the proposed project on the human environment. The "no-action" alternative was discussed previously.

		Major	Moderate	Minor	None	Unknown	Comments Included
A	Terrestrial and Aquatic Life and Habitats			X			Yes
B	Water Quality, Quantity, and Distribution			X			Yes
C	Geology and Soil Quality, Stability and Moisture			X			Yes
D	Vegetation Cover, Quantity, and Quality			X			Yes
E	Aesthetics			X			Yes
F	Air Quality			X			Yes
G	Unique Endangered, Fragile, or Limited Environmental Resources			X			Yes
H	Demands on Environmental Resource of Water, Air and Energy			X			Yes
I	Historical and Archaeological Sites				X		Yes
J	Cumulative and Secondary Impacts			X			Yes

SUMMARY OF COMMENTS ON POTENTIAL PHYSICAL AND BIOLOGICAL EFFECTS: The following comments have been prepared by the Department.

A. Terrestrial and Aquatic Life and Habitats

Minor impacts to terrestrial and aquatic life and habitats would be expected from the proposed project because deer, antelope, coyotes, geese, ducks, and other terrestrials would potentially use the area around the facility and because the addition of the proposed equipment would result in increased air pollution from facility operations. The facility would emit air pollutants and corresponding deposition of pollutants would occur; however, as described in Section 7.F. of this EA, the Department determined that any impacts from deposition would be minor. In addition, because the proposed site of operation is an existing and previously permitted industrial site, the proposed changes would be consistent with existing operations and would therefore result in only minor and consistent impacts to any terrestrial and aquatic life and habits located within the proposed area of operation. Overall, any impacts to terrestrial and aquatic life and habitats would be minor.

B. Water Quality, Quantity, and Distribution

Minor impacts would be expected on water quality, quantity, and distribution from the proposed project because the addition of the proposed equipment would result in increased air pollution from facility operations. The facility is a central compressor station, not a production field facility; therefore, no discharges into surface water would occur from operating the facility. However, minor amounts of water may be required to control fugitive dust emissions from the access roads and the general facility property. In addition, the facility would emit air pollutants and corresponding deposition of pollutants would occur; however, as described in Section 7.F. of this EA, the Department determined that any impact resulting from the deposition of pollutants would be minor.

Further, water quality, quantity, and distribution would not be impacted from constructing the facility because there is no surface water at or relatively close to the site and any minor construction activities would take place within the existing industrial site. Furthermore, no discharges into surface water would occur and no use of surface water would be expected for facility construction. Therefore, no impacts to water quality, quantity, and distribution would be expected from facility construction. Overall, any impacts to water quality, quantity, and distribution would be minor.

C. Geology and Soil Quality, Stability, and Moisture

Minor impacts would occur on the geology and soil quality, stability, and moisture from the proposed project because minor construction would be required to develop the facility. The site is an existing natural gas compressor station and the small amount of land disturbance (leveling of the soil) that would be required to construct facilities to accept the additional compressor engine (small building, concrete footings, concrete pad), the Department determined that any impacts would be minor. Since most of the infrastructure needed to accommodate the compression and transmission of natural gas (natural gas pipelines, access roads, etc.) would already be developed, any impacts would be minor. In addition, no discharges, other than a minor increase in air emissions, would occur at the facility as a result of the proposed project.

Further, increased deposition of pollutants would occur; however, as described in Section 7.F of this EA, the Department determined that any impacts resulting from the deposition of pollutants on the areas surrounding the site would be minor. Overall, any impacts to the geology and soil quality, stability, and moisture would be minor.

D. Vegetation Cover, Quantity, and Quality

Minor impacts would occur on vegetation cover, quantity, and quality because minor construction would be required to accommodate the proposed new equipment. The site is an existing natural gas compressor station and the small amount of land disturbance that would be required to construct facilities to accept the additional compressor engine (small building, concrete footings, concrete pad), the Department determined that any impacts would be minor. Since most of the infrastructure needed to accommodate the compression and transmission of natural gas (natural gas pipelines, access roads, etc.) would already be developed, any impacts would be minor. No discharges, other than increased air emissions, would occur as a result of the proposed new equipment at the facility.

Further, increased deposition of pollutants would occur as a result of the proposed project; however, as described in Section 7.F of this EA, the Department determined that any impacts resulting from the deposition of pollutants on the areas surrounding the site would be minor. Overall, any impacts to the vegetation cover, quantity, and quality in the area would be minor.

E. Aesthetics

Minor impacts would result on the aesthetic value of the area because minor construction would be required to accommodate the proposed new equipment (small building, concrete footings, concrete pad). However, the site is an existing natural gas compressor station and the addition of one compressor engine would not change the current industrial use of the area or the general appearance of the facility. Since most of the infrastructure needed to accommodate the compression and transmission of natural gas (natural gas pipelines, access roads, etc.) would already be developed, any visual aesthetic impacts would be minor.

The proposed new equipment would also create additional noise in the area. However, any auditory aesthetic impacts would be minor because the compressor engine would be located within a building and the compressor engine would be required to operate with non-selective catalytic reduction (NSCR) units and NSCR units are typically designed to be operated with mufflers installed. Overall, any aesthetic impacts would be minor.

F. Air Quality

The air quality of the area would realize minor impacts from the proposed project because the proposed project would result in increased emissions of the following air pollutants: particulate matter with an aerodynamic diameter of 10 microns or less (PM_{10}); oxides of Nitrogen (NO_x); carbon monoxide (CO); volatile organic compounds (VOC) (including HAPs); and oxides of Sulfur (SO_x). Air emissions from the facility would be minimized by limitations and conditions that would be included in Permit #2772-08. Conditions would include, but would not be limited to, BACT emission limits, opacity limitations on the proposed compressor engine, and opacity limitations on the general facility. In addition, based on previous analyses of similar sources operating under similar conditions, the Department believes that the emissions resulting from the proposed engine would exhibit good dispersion characteristics resulting in minor deposition impacts to the affected area.

Since controlled potential emissions from the proposed compressor engine would exhibit good dispersion characteristics and would not exceed any Montana ambient air quality modeling threshold, the Department determined that controlled emissions from the proposed compressor engine would not cause or contribute to a violation of any ambient air quality standard. Therefore, any impacts to air quality from the proposed compressor engine would be minor.

G. Unique Endangered, Fragile, or Limited Environmental Resources

During the initial permitting action for this facility, in an effort to identify any unique endangered, fragile, or limited environmental resources in the area, the Department contacted the Montana Natural Heritage Program, Natural Resource Information System (NRIS). The NRIS search identified the only specie of concern identified in the vicinity of the site is American Burying Beetle (*Nicrophorus Americanus*). Montana Natural Heritage Program provided anecdotal information of the collection of one specimen of this specie in the 1890's, in the same general area as the station. Information obtained from the professor of Entomology, Mike Ivey, PhD, at MSU, indicates that the location where the insect was found corresponds with a different habitat than the location of the compressor station. The beetle was most likely found on the North Slope of the hill, in more humid conditions and higher elevation then those present around the station. There is no evidence that this insect was ever found in this general area again in the last 100 years. This specie was never thoroughly researched and not much information on its habitat and vulnerability has ever been published. The Department believes that the dry condition of the site would not likely attract this beetle to the close proximity of the compressor station even if this specie were still present in the vicinity. Therefore, due to the minor amounts of construction that would be required, the relatively low levels of pollutants that would be emitted, the probability of exposing the beetle to the most concentrated air pollution, noise or vibration would be minor.

H. Demands on Environmental Resources of Water, Air, and Energy

The proposed project would have minor impacts on the demands for the environmental resources of air and water because the proposed project would result in increased air pollutants. The net change in emissions is expected to have a minimal impact on the ambient air. Deposition of pollutants would occur as a result of operating the proposed equipment; however, as explained in Section 7.F of this EA, the Department determined that any impacts on air and water resources from the proposed project would be minor.

The proposed project would be expected to have minor impacts on the demand for the environmental resource of energy because increased power would be required at the site. Further, the proposed project would result in a minor impact to the non-renewable energy resource of natural gas in the proposed area of operation because the project would result in increased compression and transfer of natural gas resulting in a reduction of that resource in the area. The impact on the demand for the environmental resource of energy would be minor because the proposed project would be consistent with existing operations at the site. Overall, the impacts for the demands on the environmental resources of water, air, and energy would be minor.

I. Historical and Archaeological Sites

During the initial permitting action for this facility, in an effort to identify any historical and archaeological sites located on or near the proposed project area, the Department contacted the Montana Historical Society, State Historic Preservation Office (SHPO). According to SHPO records, there are no previously recorded historic or archaeological sites within the proposed area. SHPO records also indicate that no cultural resource inventories have been conducted within the defined area. Because the current permit action does not involve any ground that has not been already designated for this station, the Department has determined that there would be no impact on historical and archaeological sites due to the addition of one compressor engine.

The Department recommends, however, that HPC contact the Montana Historical Society in case any artifacts of historic value are found on the site. Overall, due to the relatively small size and minimal ground disturbance required for construction of the facility, and the fact that the site is an existing industrial site, the Department determined that it is unlikely that the proposed project would have any impact on any historical and archaeological site.

J. Cumulative and Secondary Impacts

Overall, the cumulative and secondary impacts on the physical and biological aspects of the human environment in the immediate area would be minor due to the minor amount of construction activities associated with the proposed project and because the proposed project would be consistent with existing industrial operations at the existing site. Placing BACT controls on the proposed compressor engine, opacity limitations on the proposed compressor engine, and opacity limitations on the general facility, and conditions in Permit #2772-08 would control air pollution from the proposed project. The Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as would be outlined in Permit #2772-08.

Increased additional facilities (production field facilities) would likely locate in the area to withdraw natural gas from the nearby area and supply this increased capacity station with gas for dehydration, compression, and transmission. However, any future facility would be required to apply for and receive the appropriate permits from the appropriate regulating authority. Environmental impacts from any future facilities would be assessed through the appropriate permitting process.

8. The following table summarizes the potential economic and social effects of the proposed project on the human environment. The "no-action" alternative was discussed previously.

		Major	Moderate	Minor	None	Unknown	Comments Included
A	Social Structures and Mores			X			Yes
B	Cultural Uniqueness and Diversity			X			Yes
C	Local and State Tax Base and Tax Revenue			X			Yes
D	Agricultural or Industrial Production			X			Yes
E	Human Health			X			Yes
F	Access to and Quality of Recreational and Wilderness Activities			X			Yes
G	Quantity and Distribution of Employment			X			Yes
H	Distribution of Population			X			Yes
I	Demands for Government Services			X			Yes
J	Industrial and Commercial Activity			X			Yes
K	Locally Adopted Environmental Plans and Goals				X		Yes
L	Cumulative and Secondary Impacts			X			Yes

SUMMARY OF COMMENTS ON POTENTIAL ECENOMIC AND SOCIAL EFFECTS: The following comments have been prepared by the Department.

A. Social Structures and Mores
B. Cultural Uniqueness and Diversity

The proposed project would cause minor, if any, impacts to the social structures and mores and cultural uniqueness and diversity of the area because the proposed project would take place in a relatively remote location currently used for such industrial purposes. Further, the operation of another compressor engine of this type necessitates relatively few employees for normal operations and would likely not result in any, or very little, immigration of new people to the area for employment purposes. Therefore, the proposed project would have minor if any impact on the social structures and mores and cultural uniqueness and diversity in the area.

Additional activity (vehicle traffic, construction equipment, etc.) would be noticeable during construction activities associated with installing the proposed compressor engine; however, compressor stations, including the new engine, typically do not require day-to-day employees and once the engine is in service, activities associated with the operation of the facility would be minor. Overall, any impacts to the above social and economic resources in the area would be minor.

C. Local and State Tax Base and Tax Revenue

The proposed project would result in minor impacts to the local and state tax base and tax revenue because relatively few or no new employees would be needed as a result of the proposed project. Further, the proposed project would necessitate relatively little construction and typically would not require an extended period of time for completion; therefore, any construction related jobs would be temporary and any corresponding impacts on the tax base/revenue of a given area would be minor. Overall, any impacts to the local and state tax base and tax revenue would be minor.

D. Agricultural or Industrial Production

The location where the new compressor engine would be located is within a fenced area, already designated as a compressor station site. The land surrounding the proposed location is rural agricultural grazing land that would not be affected by the addition of one compressor engine. Therefore, the proposed project would result in only minor if any impacts to agricultural production in the area. The proposed project would increase industrial production because of the implementation of another compressor engine. However, because the proposed project would be relatively small by industrial standards, the project would likely not result in additional industrial sources (not directly associated with operations) moving to a given area.

Increased additional associated facilities (production field facilities) would likely locate in the area to withdraw the natural gas from the nearby area to supply the increased capacity station with gas to be dehydrated and compressed for transmission through a natural gas pipeline. However, any future facility would be required to apply for and receive the appropriate permits from the appropriate regulating authority. Impacts from any future facilities would be assessed through the appropriate permitting process. Overall, any impacts to agricultural or industrial production of the area would be minor.

E. Human Health

The Clean Air Act (CAA), which was last amended in 1990, requires the United States Environmental Protection Agency (EPA) to set National Ambient Air Quality Standards (NAAQS) for pollutants considered harmful to public health and the environment. The Federal CAA established two types of NAAQS, Primary and Secondary. Primary Standards are limits set to protect public health, including, but not limited to, the health of "sensitive" populations such as asthmatics, children, and the elderly. Secondary Standards are limits set to protect public welfare, including, but not limited to, protection against decreased visibility, damage to animals, crops, vegetation, and buildings.

Permit #2772-08 would include conditions and limitations that would require compliance with all applicable national and state air quality standards, including the federal primary and secondary standards. These standards are designed to be protective of human health. The Department believes that the existing HPC operations maintain compliance with applicable ambient air quality standards. Furthermore, the Department also believes that the proposed project would not result in violations of the standards. Overall any impacts to public health would be minor.

F. Access to and Quality of Recreational and Wilderness Activities

The proposed project would not impact any access to recreational and wilderness activities because the proposed project would occur at an existing industrial facility used for such purposes. The proposed project would have minor impacts on the quality of recreational and wilderness activities in the area because the proposed project, while relatively small by industrial standards, would be visible and would produce additional noise from the site. Overall any impacts to the access to and quality of recreational and wilderness activities in the area would be minor.

G. Quantity and Distribution of Employment
H. Distribution of Population

The proposed project would have minor, if any, impacts on the quantity and distribution of employment and the distribution of population in the area because relatively few, if any, additional permanent employees would be required for normal operations thereby resulting in relatively few, if any, new immigration to the area. In addition, temporary construction-related positions would result

from this project but any impacts to the quantity and distribution of employment from construction related employment would be minor due to the relatively small size of the facility and the relatively short time period that would be required for constructing the proposed facility changes. Overall, any impacts to the quantity and distribution of employment and the distribution of population in the area would be minor.

I. Demands for Government Services

The project would result in minor impacts on the demands for government services because additional time would be required by government agencies to issue Permit #2772-08 and to assure compliance with applicable rules, standards, and conditions contained in Permit #2772-08. In addition, there would be minor impacts on the demands for government services to regulate the increase in vehicle traffic that would be associated with constructing and operating the proposed new equipment. The increase in vehicle traffic would be primarily during facility construction because compressor stations typically do not require day-to-day employees. Therefore, vehicle traffic would be relatively minor due to the relatively short time period that would be required to construct the proposed changes. Overall, any demands for government services to regulate the facility or activities associated with the facility would be minor due to the relatively small size of the facility.

J. Industrial and Commercial Activity

Only minor impacts would be expected on the local industrial and commercial activity because the proposed project would represent only a minor increase in the industrial and commercial activity in the area. The proposed project would be relatively small and would take place at a relatively remote location currently used for such purposes.

Increased additional facilities (production field facilities) would likely locate in the area to withdraw the natural gas from the area and supply the increased capacity station with gas to be dehydrated and compressed for transmission through a natural gas pipeline. However, any future facility would be required to apply for and receive the appropriate permits from the appropriate regulating authority. Impacts from any future facilities would be assessed through the appropriate permitting process.

K. Locally Adopted Environmental Plans and Goals

The Department is unaware of any locally adopted environmental plans or goals that would be affected by the proposed project. The permit would ensure compliance with state standards and goals.

L. Cumulative and Secondary Impacts

Overall, cumulative and secondary impacts from this project would result in minor impacts to the economic and social aspects of the human environment in the immediate area. Due to the relatively small size of the project, the industrial production, employment, and tax revenue (etc.) impacts resulting from the proposed project would be minor. In addition, the Department believes that this facility could be expected to operate in compliance with all applicable rules and regulations as would be outlined in Permit #2772-08.

Increased additional facilities (production field facilities) would likely locate in the area to withdraw the natural gas from the area and supply the increased capacity station with gas to be dehydrated and compressed for transmission through a natural gas pipeline. However, any future facility would be required to apply for and receive the appropriate permits from the appropriate regulating authority. Impacts from any future facilities would be assessed through the appropriate permitting process.

Recommendation: No EIS is required.

If an EIS is not required, explain why the EA is an appropriate level of analysis: The current permit action is for the addition of another compressor engine at the HPC compressor station. Permit #2772-08 would include conditions and limitations to ensure the facility would operate in compliance with all applicable rules and regulations. In addition, as detailed in the above EA there are no significant impacts associated with the proposed project.

Other groups or agencies contacted or which may have overlapping jurisdiction: Montana Historical Society – State Historic Preservation Office, Natural Resource Information System – Montana Natural Heritage Program

Individuals or groups contributing to this EA: Montana Department of Environmental Quality – Air Resources Management Bureau, Montana Historical Society – State Historic Preservation Office.

EA prepared by: Eric Thunstrom
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